EXHIBIT E

Exhibit E

Infringement of U.S. Patent No. 7,542,715 by AT&T and DirecTV Accused Satellite Television Services

#	U.S. Patent No. 7,542,715	AT&T and DirecTV Accused Satellite Television Services
9a	9. A signal distribution system for distributing a plurality of low noise amplifier and block converter (LNB) output signals from a satellite outdoor unit (ODU) comprising:	The Accused Satellite Television Services infringe the asserted claims utilizing, for example, gateway systems, which include Signal Selector and Combiner ("SSC")-enabled LNBs (for example, SWM5-21 LNB and SWM-13 LNB) and switches (for example, SWM8, SWM16, and SWM30) used with gateways such as the HR54/Genie and HS17/Genie 2 receivers and corresponding set top boxes. By way of example, the SWM30 and corresponding gateways and set top boxes are charted herein.

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		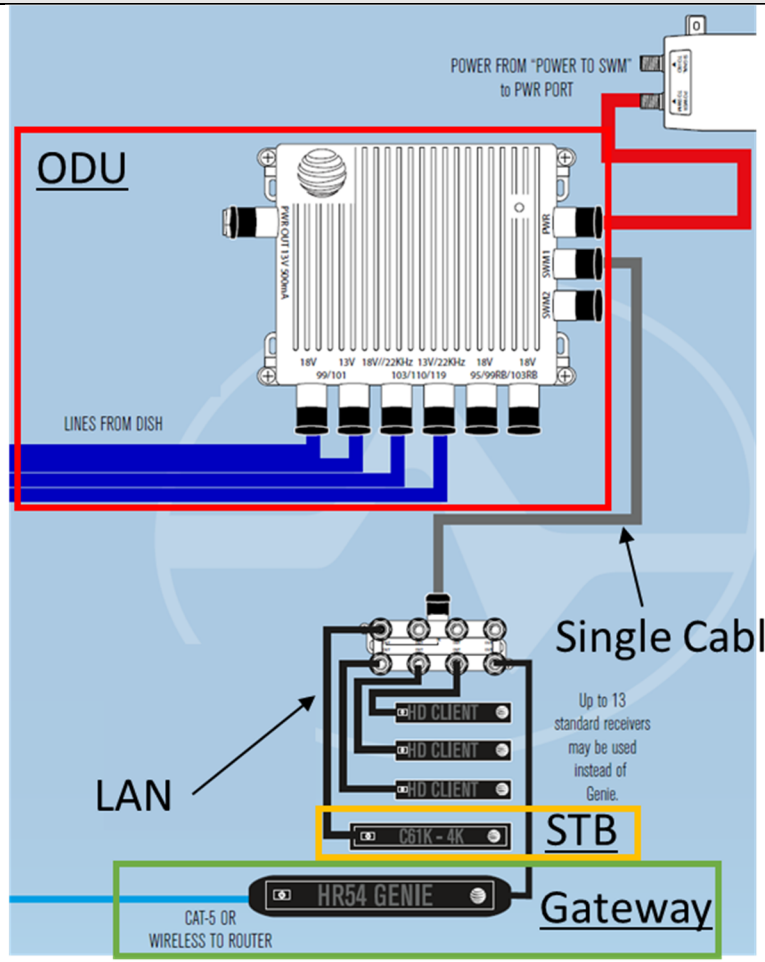

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		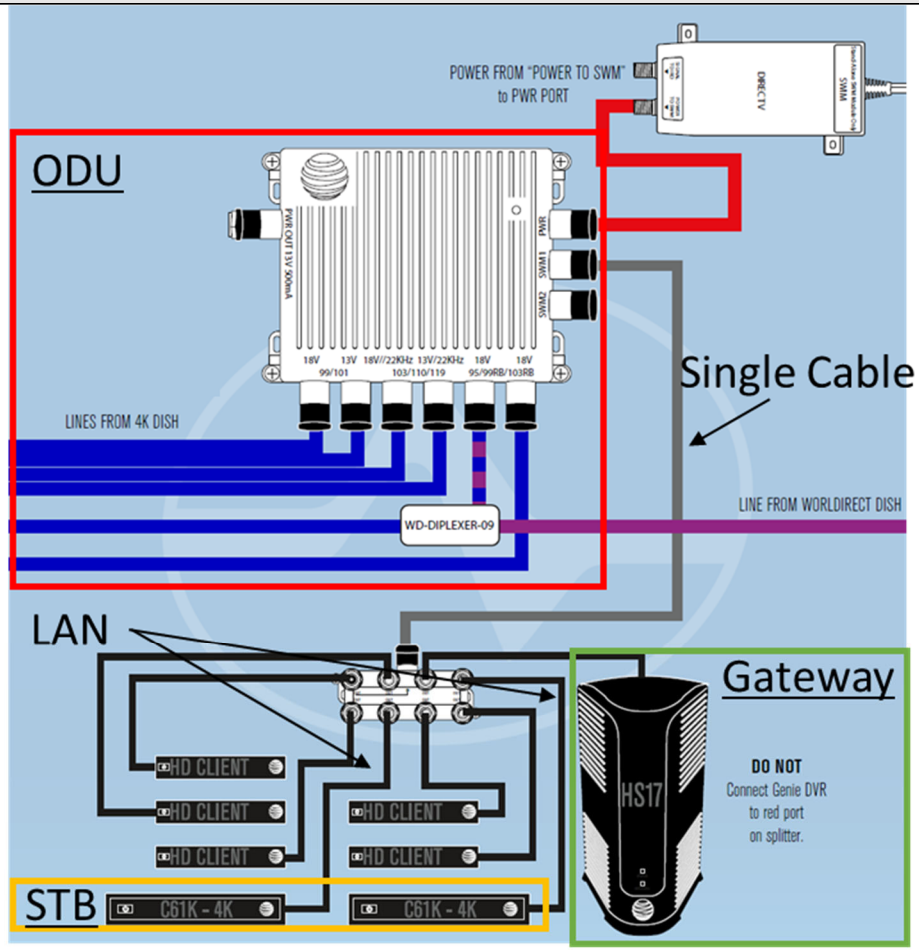
9b	a gateway in communication with the ODU and at least one set top box (STB);	The gateway systems include a gateway in communication with the ODU and at least one set top box (STB) as described below:

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		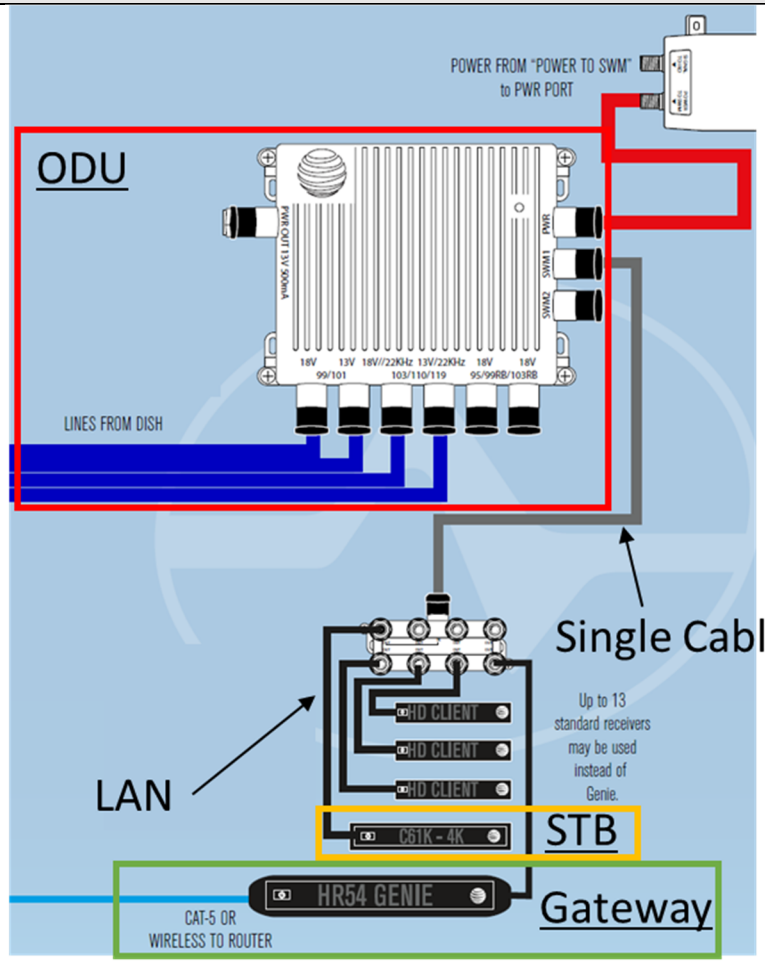

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		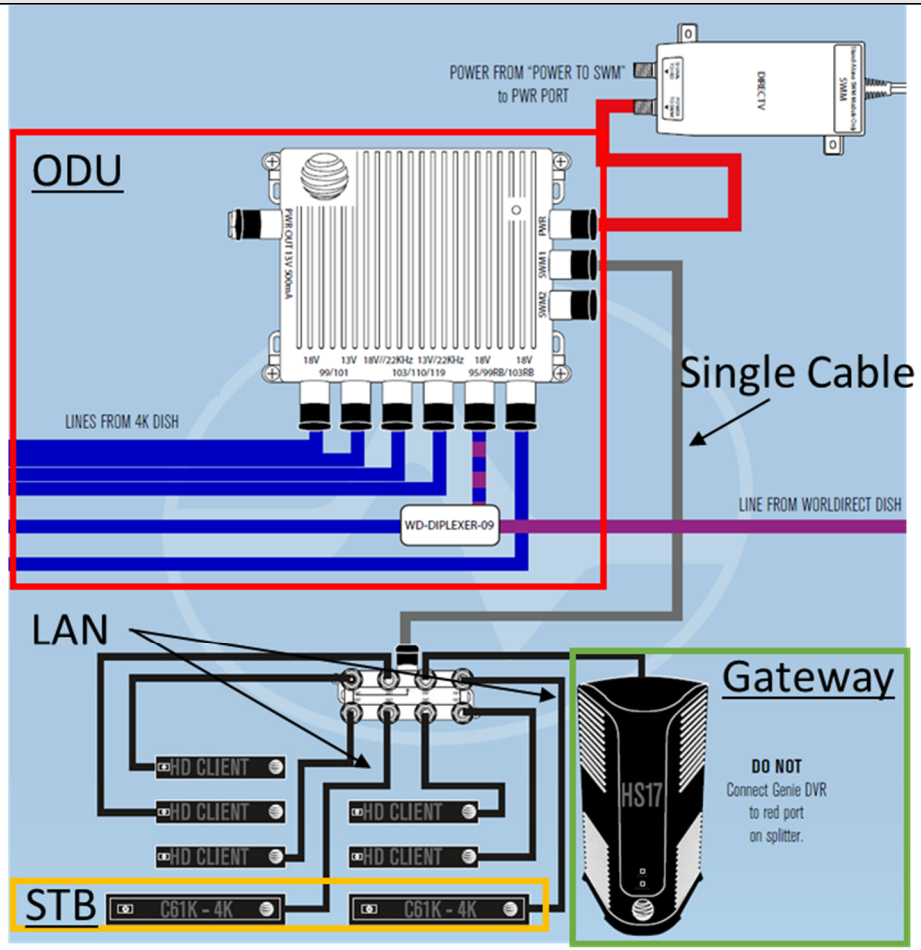

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		DIRECTV's Genie system allows the DVR to do all the work and replaces receivers with "clients" or smart TVs that have no tuners of their own. All the work is done by the Genie DVR and every location can pause live TV and view recorded programs. The original "HR34 Genie" model will continue to work but should be upgraded due to its slow processor. Genie DVRs are not permitted on commercial accounts. **HR54 "4K GENIE" DVR**  The HR54 4K Genie is the same size and shape as the HR44 but has no front buttons other than the power button. It has all the same features as an HR44 and adds the ability to power a SWM-enabled dish without a power inserter. However, even though the HR54 can only record 5 programs, it counts as 7 tuners when connected to a multiswitch because it has the hardware required to tune 4K programs from DIRECTV's "Reverse Band" 4K satellites. **HS17 "GENIE 2" HEADLESS SERVER/DVR**  DIRECTV's HS17 "Genie 2"can record up to 7 programs at once with 400 hour HD recording capability. It can provide programming to five HD locations and two 4K locations, but it does not output live TV itself. It can power a SWM-enabled dish, connect to the internet over Wi-Fi, and connect to wireless clients without any additional hardware. It is designed as a "set and forget" device that sits near the customer's router instead of near a television. It is designed to pull 13 tuners from a SWM-enabled reverse-band dish or SWM-30, but will work "in a pinch" with a SWM-8 or SWM-16 where it will pull 8 tuners. Due to DIRECTV restrictions, if a Genie 2 is installed, no other receivers or DVRs may be on the same account so this may not be the best option for people seeking to load up on recording capacity. If you are looking for more than 7 recordings at the same time, or the ability to serve more than 7 rooms, you may wish to use the 4K Genie instead. However, this DVR should serve the needs of the vast majority of DIRECTV customers while minimizing extra wiring and extra "black boxes."

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		The Genie Client looks and functions like a tiny DIRECTV client but it's all "smoke and mirrors." The client receives input from the remote and outputs video to the TV, but all the hard work is done by the Genie DVR. The clients can pause live TV and do everything that the DVR itself can do, but run completely silent and use less power than any other DIRECTV product. **GENIE MINI CLIENTS (MODELS C31, C41, C51, C61)**  The Genie Mini Client displays SD and HD video over HDMI. An adapter cable can be use to output over component or composite connections. It does not require an access card since it has no tuner and relies on the Genie DVR for all programming and functions. There are few functional differences between models: the C31 model works in RF mode with ***DIRECTV's older remote***, while all other models work with the ***Genie Remote***. The C61 model has AT&T branding. All of this generation's clients work the same, and none is faster than another. **4K GENIE MINI CLIENT MODEL C61K**  The 4K Genie Mini Client is designed specifically for use with 4K TVs with HDMI 2.0 and HDCP 2.2. It is not designed to be used with HD or SD TVs and does not have the ability to output over component or composite. If connected to an HDTV it may occasionally show "nag messages" saying that the TV is not 4K compatible. It is somewhat larger and much heavier than a traditional Genie Mini Client, and uses quite a bit more power. **WIRELESS GENIE MINI CLIENTS (MODELS C41W, C61W)**  The wireless Genie Mini Client outputs HD programming without a coaxial cable connection. When used with an HR44 or HR54 Genie, a separate ***Wireless Video Bridge*** must be used for connection, but when used with a Genie 2 system, no separate video bridge is required. The client may be placed up to 50 feet away from the video bridge or Genie 2. Up to 3 wireless clients may be used with an HR44 or HR54, and up to 5 wireless clients may be used with a Genie 2.
9c	a signal selector that receives a plurality of	The gateway systems include a signal selector that receives a plurality of broadband LNB signals comprising a plurality of transponder signals, the signal selector is

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	broadband LNB signals comprising a plurality of transponder signals, the signal selector is responsive to transponder select information transmitted by the gateway and selects a plurality of transponder signals from at least one broadband LNB signal based on the transponder select information;	responsive to transponder select information transmitted by the gateway and selects a plurality of transponder signals from at least one broadband LNB signal based on the transponder select information as described below: SSC works with the connected IRD's to provide only the specific content the IRD's tuner is requesting. The designated channel for each tuner contains the specific programming each tuner is requesting. Tuners are assigned their individual channel during the IRD's programming guide acquisition phase.
9d	a frequency translator coupled to the signal selector that is capable of shifting the selected transponder signals to new carrier frequencies to produce RF signals; and	The gateway systems include a frequency translator coupled to the signal selector that is capable of shifting the selected transponder signals to new carrier frequencies to produce RF signals as described below:

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		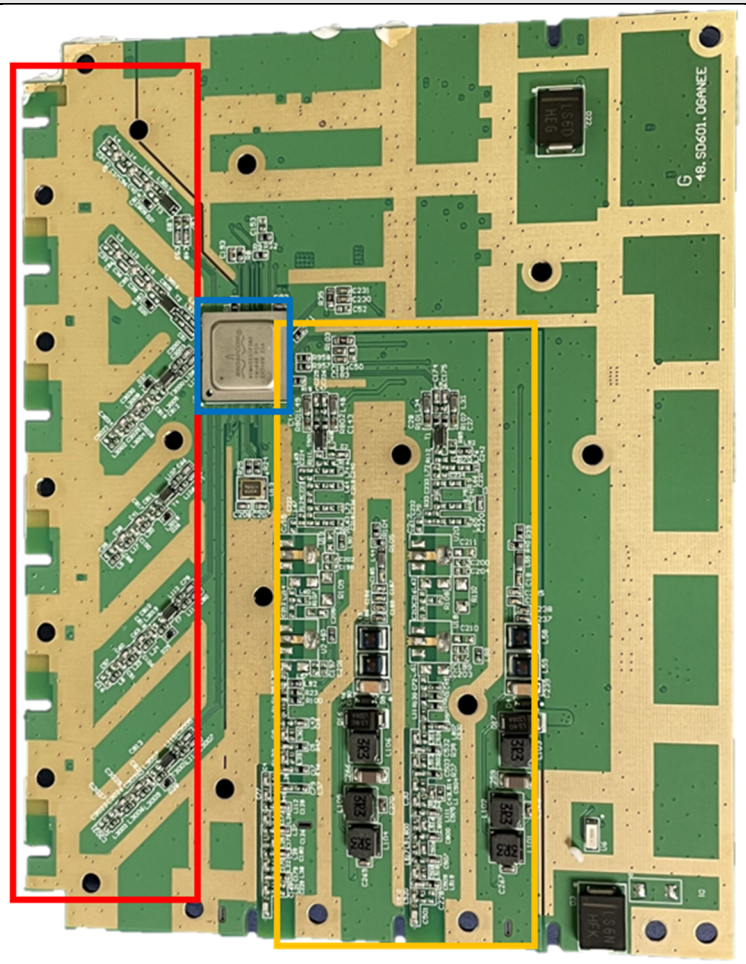

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#	U.S. Patent No. 7,542,715	AT&T and DirecTV Accused Satellite Television Services
		Technology Advantages: • *Drives future TV:* leapfrogs current analog architecture by moving to digital and supporting up to 24 minimally spaced channels; opens up the ability to stream independent HD broadcast streams and IP services from a single cable to multiple connected devices, delivering next-generation satellite TV. • *Simplifies installation and upgrades:* Broadcom's stacked channel technology allows single cable installation, which significantly reduces the cost and complexity for installs and upgrades with better home theater aesthetics for subscribers. • *Full-Band Capture (FBC):* Broadcom's digital tuning technology digitizes the entire spectrum enabling more efficient and flexible distribution of video streams and IP services. • *Lower system cost:* replaces multiple analog ODU chips with a single lower cost mixed signal chip. Broadcom's BCM4551 also offers a higher level of integration, while consuming less power than the previous generation chipset, and it enables direct sampling of low-noise block (LNB) outputs across worldwide ODU satellite markets. The simplified design of Broadcom's new ODU chipset also allows 24 DVB-S2 channels to be stacked on a single coaxial cable to service any set-top box in a home, simplifying and reducing satellite operator installation costs. **Key Features and Benefits:** • Second generation with reduced power and better integration in 28 nm process • 8 RF inputs and 1RF output covering the 250 to 2350 MHz frequency range • 24 user-band output channels • 24 output channels selectable from any LNB input • Frequency shift keying (FSK) and digital satellite equipment control (DiSEqC)
9e	a signal combiner coupled to at least one frequency translator capable of combining at least two RF signals to produce a composite signal;	The gateway systems include a signal combiner coupled to at least one frequency translator capable of combining at least two RF signals to produce a composite signal as described below:

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9f	wherein the modulation of the composite signal is the same as the modulation of the broadband LNB signals and wherein the composite signal is transmitted to the	The modulation of the composite signal is the same as the modulation of the broadband LNB signals and wherein the composite signal is transmitted to the gateway and the gateway receives the composite signal, decodes specific programs, and distributes the programs over a digital local area network (LAN) to STBs as described below:

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	gateway and the gateway receives the composite signal, decodes specific programs, and distributes the programs over a digital local area network (LAN) to STBs.	**Technology Advantages:** • *Drives future TV:* leapfrogs current analog architecture by moving to digital and supporting up to 24 minimally spaced channels; opens up the ability to stream independent HD broadcast streams and IP services from a single cable to multiple connected devices, delivering next-generation satellite TV. • *Simplifies installation and upgrades:* Broadcom's stacked channel technology allows single cable installation, which significantly reduces the cost and complexity for installs and upgrades with better home theater aesthetics for subscribers. • *Full-Band Capture (FBC):* Broadcom's digital tuning technology digitizes the entire spectrum enabling more efficient and flexible distribution of video streams and IP services. • *Lower system cost:* replaces multiple analog ODU chips with a single lower cost mixed signal chip. Broadcom's BCM4551 also offers a higher level of integration, while consuming less power than the previous generation chipset, and it enables direct sampling of low-noise block (LNB) outputs across worldwide ODU satellite markets. The simplified design of Broadcom's new ODU chipset also allows 24 DVB-S2 channels to be stacked on a single coaxial cable to service any set-top box in a home, simplifying and reducing satellite operator installation costs. **Key Features and Benefits:** • Second generation with reduced power and better integration in 28 nm process • 8 RF inputs and 1RF output covering the 250 to 2350 MHz frequency range • 24 user-band output channels • 24 output channels selectable from any LNB input • Frequency shift keying (FSK) and digital satellite equipment control (DiSEqC)

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		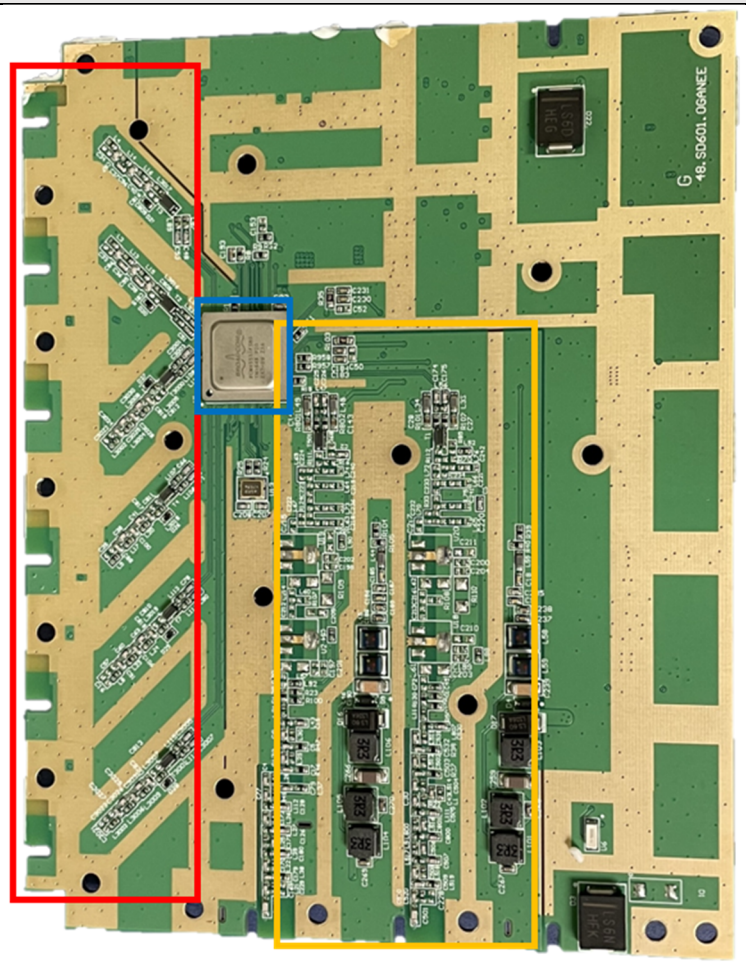

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		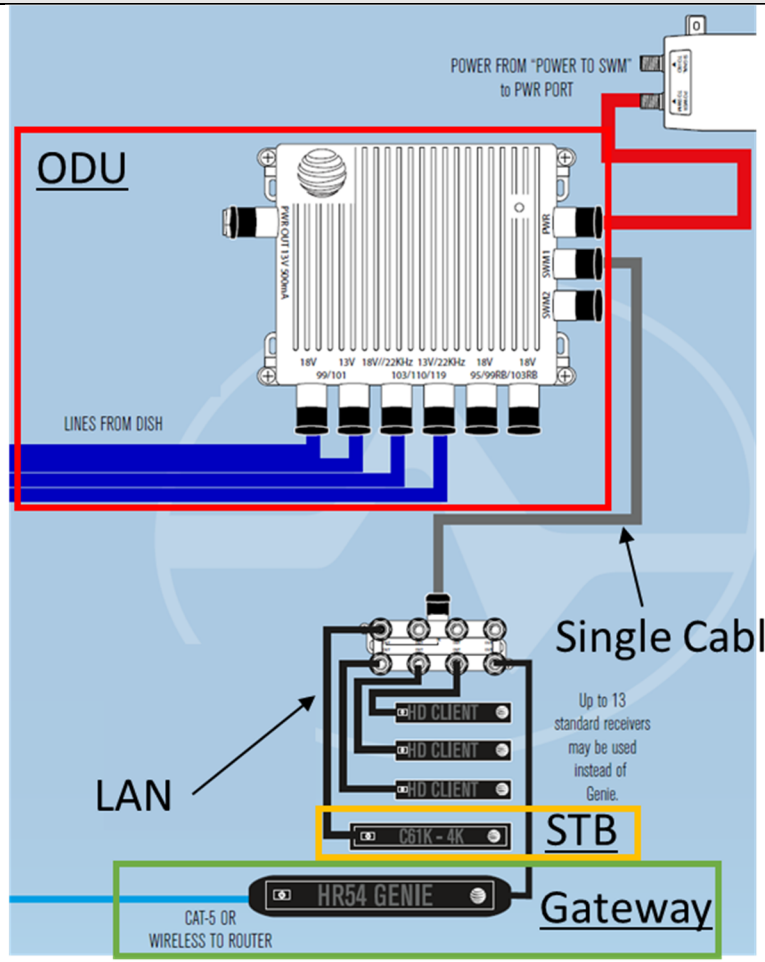

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		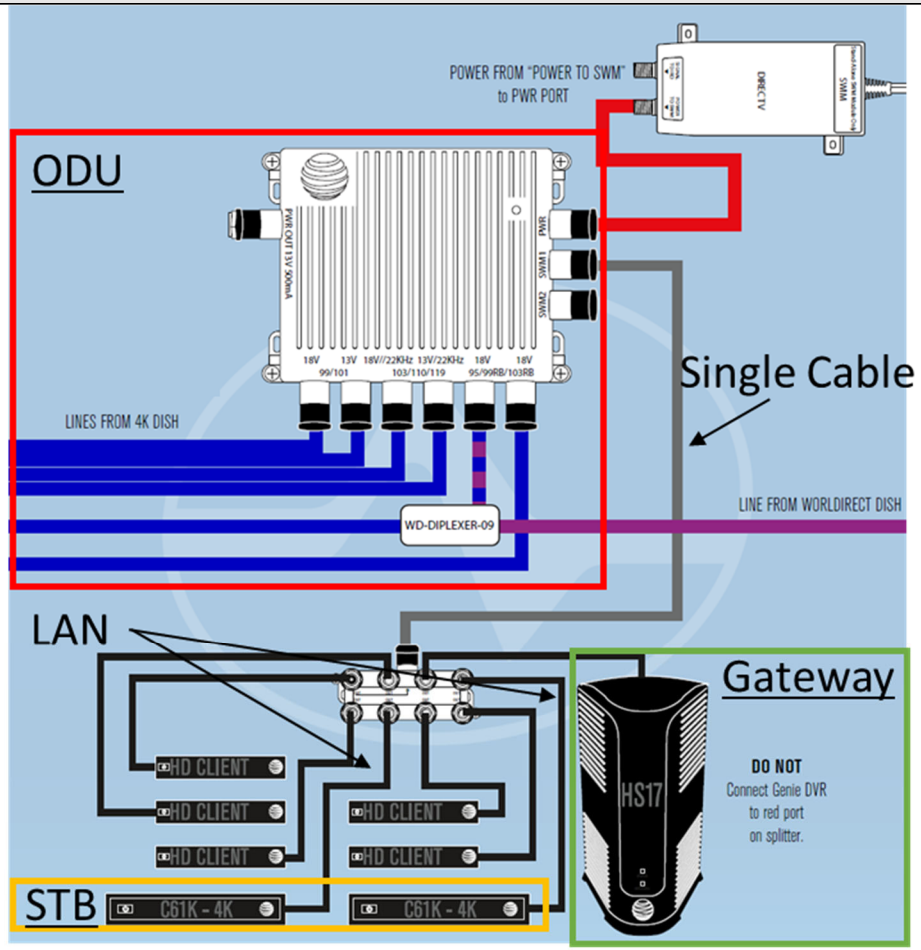
10	10. The signal distribution system of claim 9 wherein a translation table maps original channel locations on	A translation table maps original channel locations on the selector input to new channel locations on the selector output as described below:

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	the selector input to new channel locations on the selector output.	SSC works with the connected IRD's to provide only the specific content the IRD's tuner is requesting. The designated channel for each tuner contains the specific programming each tuner is requesting. Tuners are assigned their individual channel during the IRD's programming guide acquisition phase.
11	11. The signal distribution system of claim 10 wherein the translation table is maintained by a controller located in the gateway and the translation table is communicated to devices in the network.	The gateway maintains the translation table and communicates the translation table to the STBs via the network as described below: SSC works with the connected IRD's to provide only the specific content the IRD's tuner is requesting. The designated channel for each tuner contains the specific programming each tuner is requesting. Tuners are assigned their individual channel during the IRD's programming guide acquisition phase.
12	12. The signal distribution system of claim 10 wherein the translation table is maintained by a controller located in the ODU and the translation table is communicated to devices in the network.	The translation table is maintained by a controller located in the ODU and the translation table is communicated to devices in the network as described below: SSC works with the connected IRD's to provide only the specific content the IRD's tuner is requesting. The designated channel for each tuner contains the specific programming each tuner is requesting. Tuners are assigned their individual channel during the IRD's programming guide acquisition phase.